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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/018,319 | 04/25/2002 | Manfred Stefener | GRUNP117 | 1648 |

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IP STRATEGIES
12 1/2 WALL STREET
SUITE I
ASHEVILLE, NC 28801

EXAMINER

CREPEAU, JONATHAN

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| ART UNIT | PAPER NUMBER |
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1745

DATE MAILED: 07/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/018,319

Applicant(s)

STEFENER ET AL.

Examiner

Jonathan S. Crepeau

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 April 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 23-29, 74 and 75 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 23-29, 74 and 75 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. This Office action is responsive to the Appeal Brief filed on April 24, 2006 and addresses claims 23-29, 74, and 75. The claims are newly rejected under 35 USC 103. As such, prosecution is reopened and this action is non-final.

Claim Rejections - 35 USC § 103

2. Claims 23-29, 74, and 75 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lessing et al (U.S. Patent 5,641,585) in view of Kelly et al (6,268,077), Gamo et al (5,976,725), or Jankowski et al (6,638,654).

Lessing et al. teaches a miniature ceramic fuel cell that is supported on a consumer device such as a mobile telephone (see Fig. 1). As shown in Figures 1 and 2, both the fuel and ambient air are pumped to the fuel cell using pumps (22, 26). The fuel is contained in a tank (18) that is mounted on the consumer (see Fig. 1). Regarding claim 25, the fuel cell is operable on hydrogen (see col. 4, line 63). Regarding claims 24, 28, 74, and 75, the pumps are capable of being controlled in the claimed manner.

Lessing et al. do not expressly teach that the fuel tank is a module that “can be inserted into the consumer” as recited in claim 23.

However, the invention as a whole would have been obvious to one of ordinary skill in the art at the time the invention was made because the artisan would be motivated to use such a

removable fuel tank in the system of Lessing. It is apparent that the fuel tank of Lessing contains a fixed volume fuel. As such, when the fuel supply is depleted, it would be expedient to be able to simply replace the fuel tank. Therefore, the artisan would have motivation to use a removable fuel tank. Further, it has been held that making integrally connected elements separable from each other is generally not sufficient to distinguish a claim over the prior art. See *In re Dulberg*, 289 F.2d 522, 523, 129 USPQ 348, 349 (CCPA 1961); MPEP 2144.04.

As evidence that removable fuel tanks are known in the art of portable fuel cell systems, the following references are noted: Kelly et al (discloses a portable device having fuel cell with a removable fuel tank in column 3, line 42); Gamo et al (discloses a removable tank (200) and associated valve structure in a fuel cell system for use in a portable device); and Jankowski et al (teaches a MEMS-based fuel cell system comprising a modular fuel cartridge which can be “easily replaced or recharged” (col. 3, line 13)). Each of these references qualifies as prior art against the instant application. As such, the artisan would be sufficiently skilled to use any of the technologies disclosed in the references for making the fuel tank of Lessing et al. removable. Therefore, the use of a replaceable fuel tank in the system of Lessing et al. is not considered to represent an inventive step.

Response to Arguments

3. Applicant’s arguments filed April 24, 2006 have been fully considered but they are not persuasive. In response to the argument that “it should also be noted that the examiner did not base the rejection in part on these additional references,” these references have now been

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positively applied in the rejection. Furthermore, Applicant states that “the noted references do not disclose fuel cells or fuel tanks that are compatible with the teachings of Lessing et al.”

However, Applicant has not specifically pointed out how this is the case. Therefore, it is still believed that the technologies disclosed by the references could easily be adapted or modified to be usable in the specific configuration disclosed by Lessing et al.

Conclusion

4. THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jonathan Crepeau whose telephone number is (571) 272-1299. The examiner can normally be reached Monday-Friday from 9:30 AM - 6:00 PM EST.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Ryan, can be reached at (571) 272-1292. The phone number for the organization where this application or proceeding is assigned is (571) 272-1700. Documents may be faxed to the central fax server at (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Jonathan Crepeau
Primary Examiner
Art Unit 1745
July 3, 2006